

Attorney Docket No. 5051.338CT
Application No. 09/963,340
Page 4 of 6

SEP 20 2005

45. (Currently Amended) A crop comprising a plurality of plants according to claim 13, 31 or 43, or a progeny thereof, planted together in an agricultural field.

46-56. (Canceled).

57. (Currently Amended) A method of producing a reduced nicotine tobacco plant having decreased levels of nicotine in leaves of said tobacco plant, said method comprising:

growing a tobacco plant, or progeny plants thereof, wherein said plant comprises cells containing a DNA construct comprising a transcriptional initiation region functional in said plant and an exogenous DNA sequence operably joined to said transcriptional initiation region, wherein a transcribed strand of said DNA sequence is complementary to endogenous quinolate phosphoribosyl transferase messenger RNA in said cells
providing a tobacco plant cell;
providing the isolated nucleic acid of claim 1;
transferring the isolated nucleic acid of claim 1 to said tobacco plant cell so as to obtain a transformed tobacco plant cell, wherein said transformed tobacco plant cell has a reduced expression of a quinolate phosphoribosyl transferase gene as compared to a non-transformed tobacco plant cell; and
regenerating the transformed tobacco plant cell into a reduced nicotine tobacco plant.

58-60. (Canceled).

61. (Currently Amended) The method according to claim 57, wherein said exogenous DNA isolated nucleic acid sequence comprises the quinolate phosphoribosyl transferase encoding sequence of SEQ ID NO:1 of claim 1 is in antisense orientation.

62. (Currently Amended) The method according to claim 57, wherein said exogenous DNA isolated nucleic acid sequence comprises a quinolate phosphoribosyl transferase encoding sequence selected from the DNA sequences of claim 1, in antisense orientation is in sense orientation.

63-93. (Canceled).

94. (New) An isolated nucleic acid comprising at least about 30 consecutive nucleotides of the nucleotide sequence of SEQ ID NO:1.

95. (New) The nucleic acid of claim 94, comprising at least about 50 consecutive nucleotides of the nucleotide sequence of SEQ ID NO:1.

96. (New) The nucleic acid of claim 94, comprising at least about 75 consecutive nucleotides of the nucleotide sequence of SEQ ID NO:1.

97. (New) The nucleic acid of claim 94, comprising at least about 100 consecutive nucleotides of the nucleotide sequence of SEQ ID NO:1.

98. (New) The nucleic acid of claim 94, comprising at least about 125 consecutive nucleotides of the nucleotide sequence of SEQ ID NO:1.

BEST AVAILABLE COPY

Attorney Docket No. 5051.338CT
Application No. 09/963,340
Page 5 of 6

99. (New) The nucleic acid of claim 94, comprising at least about 150 consecutive nucleotides of the nucleotide sequence of SEQ ID NO:1.
100. (New) The nucleic acid of claim 94, comprising at least about 200 consecutive nucleotides of the nucleotide sequence of SEQ ID NO:1.
101. (New) The nucleic acid of Claim 94, wherein the nucleic acid is in sense orientation.
102. (New) The nucleic acid of Claim 94, wherein the nucleic acid is in antisense orientation.
103. (New) The nucleic acid of Claim 94, wherein the nucleic acid is DNA.
104. (New) The nucleic acid of Claim 94, wherein the nucleic acid is RNA.
105. (New) A vector comprising the nucleic acid of Claim 94.
106. (New) An isolated cell comprising the vector of Claim 105.
107. (New) The nucleic acid of Claim 94, further comprising a detectable moiety.